

ABSTRACT OF THE DISCLOSURE

A test device and method for detecting alignment of word lines and deep trench capacitors in DRAM devices.

In the test device, parallel first and second bar-type deep trenches capacitors are disposed in the scribe line region. The first and second bar-type deep trenches capacitors extend to the first and second pairs of memory cells in the memory region adjacent to the first active area respectively. The first and second bar-type deep trenches capacitors are electrically coupled to bit line contacts of the first and second pairs of memory cells respectively. First and second transistors have sources coupled to the first and second bar-type deep trenches capacitors respectively. A first bit line contact is electrically coupled to drains of the first and second transistors.